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Glaser, L.

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CHAPTER 1

CHAPTER 1

Introduction

'When I was still an entrepreneur, there was no doubt in my mind what an entrepreneur was. As soon as I started to contribute to the academic understanding of entrepreneurship, I wasn't so sure anymore.'

(Former entrepreneur-academic, 2010)

This chapter starts with a review of the extant theoretical debates and empirical developments within the corporate entrepreneurship literature. The presented review facilitates the identification of important theoretical constructs and relationships and indicates the presence of a well-established body of research. Yet, it also detects mixed empirical support for key hypothesized relationships, reveals several neglected themes and uncovers some methodological limitations. These observations lead to the design of three empirical studies that constitute my doctoral thesis on corporate entrepreneurship. In this introductory chapter I demonstrate how these studies, individually and collectively, contribute to the literature on corporate entrepreneurship. The second part of this chapter discusses the main contributions and research aim. Additionally, I present an overall corporate entrepreneurship framework that provides an overview of the empirical chapters. This chapter concludes with a description of the research setting and a short summary of each of the included studies.

1.1 CONCEPTUAL BACKGROUND

In the following section I address the main concept corporate entrepreneurship and identify several unresolved issues in the literature. I emphasize the combination of organizational and individual levels, elaborate on the important role of middle managers and discuss antecedents and outcomes of entrepreneurial behavior. I identify 'social capital' as a main antecedent of entrepreneurial behavior and 'personal initiative' as a key indicator of such behavior among middle managers.

Corporate Entrepreneurship

In recent literature, corporate entrepreneurship (CE) has been recognized as a legitimate path to high levels of organizational performance (Ireland et al., 2006; Morris & Jones, 1999). This recognition has led to increasing interest from scientists, managers, and policy-makers on how CE can be successfully encouraged (Audretsch & Thurik, 2000). For the established firm, CE represents the potential "engine of progress" through which new products can be created, new markets can be entered, new technologies can be explored, and new businesses can be built (Zahra et al., 1999). Yet, it is no simple process to move a traditional hierarchical company to the point that entrepreneurship becomes a meaningful and important component of its strategy (Kuratko et al., 2011). CE faces innumerable barriers and research has shown that most of CE attempts fail (Garvin & Levesque, 2006). For instance, in a study of 95 venturing units in corporations no instances of success among firms pursuing new internal ventures were found (Campbell et al., 2003). More broadly, it is even estimated that within large organizations 35 to 45% of all new products fail (Boulding & Morgan, 1997).

The distinctive features of CE make it difficult to facilitate and sustain entrepreneurship in established organizations. For instance, emerging businesses usually lack hard data, making financial forecasts undependable. Especially when it comes to existing budgeting systems and human resource management there is a poor fit between old and new organizational traits. Corporate budget systems favor established businesses because higher financial returns are usually provided by investments in known markets than in unknown ones (Garvin & Levesque, 2006). New innovative ideas are therefore difficult to finance for long periods, and in times of austerity they are the first to face funding cuts. In a similar vein, companies design human resource systems to develop managers whose operational skills match the need for mature businesses, not the strategic conceptual and entrepreneurial skills that start-ups require (Garvin & Levesque, 2006). While the desire to become more

entrepreneurial exist among established companies, the knowledge of how to implement fresh ideas and creating new products throughout the organization still remains a challenge.

Part of the “problem” in trying to understand how CE can succeed is that while a company can be seen as entrepreneurial (e.g. Miles & Arnold, 1991; Morris et al., 1994; Smart & Conant, 1994), there is no consensus on what being entrepreneurial actually means. This situation is exacerbated by the large number of labels for entrepreneurial phenomena in organizations (Covin & Miles, 1999). Different views exist in the literature on what CE precisely entails (see Antoncic & Hisrich, 2003; Lumpkin & Dess, 1996 for reviews), and over the past thirty years definitions of CE continue to evolve. Hence, there is no consensus on a single definition of CE. For instance, Zahra et al., (1999) argue that CE includes activities aimed at creating new businesses rather than improving established companies. In this context, CE focuses on the ability of a company to create new ventures. Other definitions emphasize the capability for managers to systematically overcome internal constraints so they can reinvent the company through novel business initiatives (Salvato et al., 2009). While there are commonalities between these definitions, various models of CE appear in the scholarly literature. Based on the work of Ireland et al., (2009), Table 1.1 provides an overview of prior models and definitions. I review these models on the basis of four criteria: (a) the entrepreneurial phenomenon, (b) the level of analysis, (c) the antecedents, and (d) the outcomes.

Looking at these definitions some general characteristics of the CE models can be extracted, namely; ‘new business creation’, ‘internal innovation’, ‘proactive behavior’, ‘innovative behavior’. Common themes among the definitions of CE involve the generation, development, and implementation of new ideas and sets of behaviors by a large company (Damanpour, 1991). In line with these definitions, throughout this thesis CE is therefore defined as; *“The process whereby an individual or a group of individuals within an existing organization, generate, develop and implement initiatives within that organization.”* (Hornsby et al., 2002; Sharma & Chrisman, 1999).

Taking a closer look at the definitions in Table 1.1 it can be concluded that they differ in their level of analysis. While debates on what constitutes the appropriate level to study CE are lingering on, prior scholars recognize that CE commonly manifests as a multilevel phenomenon (Davidsson & Wiklund, 2001). This makes it difficult to distinguish what constitutes an independent variable (an entrepreneurial activity) from a dependent variable (a characteristic of the organization). For instance, the activity of “making sales” is both an important

individual-level entrepreneurial behavior, and an important characteristic of an existing organization (Gartner et al., 2010). An individual is actually involved in creating a sales transaction, that is an organization cannot actually sell; an individual must undertake such activities. Yet, “making sales” is a critical signifier of an important organizational characteristic (Brush et al., 2008; Gartner et al., 2010). Although it is difficult to keep separate what appears to be individual level behavior and what is or becomes an organizational characteristic, we do know that organizations are formed through interaction between individuals (Gartner et al., 2010). Therefore, the primary level of the CE definition in this dissertation is at the individual level, while I also examine antecedents and outcomes at the organizational level. As emphasized by Elfring (2005), realizing new combinations of resources that lead to innovative products and processes requires both individuals with a particular entrepreneurial behavior and an organizational context that not only tolerates, but even supports, these entrepreneurial initiatives. An important research question in the field of CE is thus concerned with which dimensions determine entrepreneurial behavior on the individual level and how factors at the organizational level influence this relationship.

Taken together, it can be concluded that the concept of CE, as it refers to entrepreneurship in an existing organization, emerges at both the individual and organizational levels. Ongoing debates about CE focus on who is behaving as an entrepreneur and on how these corporate entrepreneurs interact with their organizational environment in their pursuit of opportunities (Hitt et al., 1999). Prior research has dealt with different levels of analysis, different antecedents, and different outcomes of CE, all of which will be discussed in the following sections.

Table 1.1: Models of Corporate Entrepreneurship

Model	Phenomenon	Level of analysis	Definition	Antecedents	Outcomes
Burgelman (1983a)	Autonomous strategic behavior	Organization Top Management	The process through which a diversified major firm transforms development activities at the frontier of corporate technology into new business	Structural context	Corporate strategy changes
Covin & Slevin (1991)	Corporate entrepreneurship	Organization	Extending the firm's domain of competence and corresponding opportunity set through internally generated new resource combinations	Risk-taking Innovativeness Pro-activeness	Firm performance, strategic, managerial and organizational variables
Dess et al., (2003)	Corporate entrepreneurship/ Entrepreneurial orientation	Organization Top Management	The driver of new business within ongoing enterprises through internal innovation, joint ventures or acquisitions, strategic renewal, product and process innovations	Prior organizational knowledge	Acquisitive and experimental organizational learning
Gartner et al., (2010)	Entrepreneurial behavior	Individual	Activities of individuals who are associated with creating new organizations	Individual behavior and behavior processes	New created organization
Hornsby et al., (1993)	Intrapreneurship	Individual	A means for corporations to enhance the innovative abilities of their employees and, at the same time, increase corporate success through the creation of new corporate ventures	Organizational characteristics, individual characteristics, precipitating event	Business/feasibility planning
Kuratko et al., (2004: 2005)	Entrepreneurial behavior	Individual	Exploitation of product-market opportunities through innovative and proactive behavior	Organizational antecedents rewards, management support, resources, organizational boundaries, work discretion/autonomy	Various possible individual and organizational level outcomes
Zahra (1991)	Corporate entrepreneurship	Organization	The process of creating new business within established firms to improve organizational profitability and enhance a company's competitive position	Product innovation Risk-taking Pro-activeness	Corporate financial performance

Corporate Entrepreneurship: Combination of multiple levels

As noted, there has been discussion what constitutes the appropriate level to study CE. Schumpeter (1947) was one of the first scholars who argued that there are no occupational positions or organizational offices that can be defined as entrepreneurial, although it is often convenient to talk of an entrepreneur. Debates proceed in the literature; as scholars like Burgelman (1983), and Covin and Slevin (1991) argue that CE should be measured at the organizational level of analysis. Gartner et al., (2010) argue that since an organization is formed through a process of interaction between individuals, CE is at the core of this formation, which indicates an individual level of analysis. Accordingly, Antoncic and Hisrich (2003) stated that CE can be studied at various levels of inquiry, with the most important distinction being the organizational and individual levels.

So far, most attempts to study CE have focused on the organizational level. For instance, scholars have investigated the formation of new corporate ventures and their fit with the corporation (i.e. Kuratko, 2007). Contrary, individual level scholars have studied the personal correlates of managers' entrepreneurial behavior and often use the term intrapreneurship. While the distinction between intrapreneurship and CE is equivocal, the concepts refer to different processes (Antoncic & Hisrich, 2003; Sharma & Chrisman, 1999). At the organizational level CE usually refers to top-down processes, such as a management strategy to foster workforce initiatives and efforts to innovate and develop new business. For example, most companies adopt a dispersed or focused strategy on CE (Birkinshaw, 1997). A focused CE strategy host new ventures in isolated divisions that can shield entrepreneurial processes against the negative impact of the large parent organization (Morris et al., 2008), whereas a dispersed CE strategy assumes that entrepreneurial activities are distributed across the organization. Entrepreneurship is not restricted to a particular unit, but is instead scattered over many parts of the organization. In this case, senior management may trigger managers' exploration activities by fostering a culture that allows for differing behaviors, opinions and ideas (Volberda, 1998). Top-down processes can thus be described as direct cross-level effects, where factors at a higher level of analysis (strategy formulation) influence outcomes or dependent variables at a lower level (managers' exploration activities) (Dyck et al., 2005). In contrast, intrapreneurship is defined at the individual level and relates to bottom-up processes. Bottom-up processes emerge from lower-to-higher-level phenomenon. For example, an organization's climate for innovation emerges from the shared perceptions of members of the organization on

the degree to which organizational policies, procedures, and practices support and encourage innovation (Amabile, 1988; Scott & Bruce, 1994). Although conceptualized at the organizational level, an organizational climate for innovation has its origin in individuals' perceptions of their work environment, and it is through exposure to similar organizational policies, procedures, and practices regarding innovation, social interactions, and socialization processes that members of the same organization develop shared perceptions of an organizational climate for innovation (Gupta et al., 2007). Bottom-up effects are thus the individual differences that lead to collective responses that ultimately constitute macro-phenomena (House et al., 1995; Klein et al., 2000; Rousseau, 1985). In general, bottom-up and top-down processes describe the interplay between levels; wherein a given construct is associated with constructs operating at a lower or higher level of analysis (Korsgaard et al., 2008). To date, most CE researchers have tended to focus on one level of analysis. It is rare that their contributions operate at different levels or are considered in combination (Gupta et al., 2007). Yet, Ginsberg and Hay (1994) already acknowledged almost two decades ago that CE is both a top-down and a bottom-up process, which relies on the initiatives emanating from below as much as on the creation of a receptive climate from above.

In an effort to create a complete multilevel perspective for theorizing and studying CE, a consideration of both bottom-up and top-down approaches is required (Gupta et al., 2007). Prior scholars have encouraged researchers to examine how variables at one level of analysis influence CE at another level and how variables at two different levels of analysis interact in determining the extent of CE outcomes (Gupta et al., 2007; Hitt et al., 2007). Since intrapreneurship belongs to the domain of employee behavior, it faces specific limitations that a corporate hierarchy and an intra-organizational context may impose on individual initiative, as well as specific means of support that an existing business may offer to a corporate entrepreneur. For instance, corporate entrepreneurs excel in identifying valuable opportunities, but often lack strategic resources from the organizational level to optimally exploit these opportunities (Ireland et al., 2003). While these corporate entrepreneurs may be a major source of entrepreneurial initiatives, their activities often fail due to a lack of available knowledge and internal legitimacy (Aldrich & Fiol, 1994). The organizational context thus might imply certain barriers and restrictions. On the other hand, it can also provide a considerable amount of security such that the corporate entrepreneur is not personally liable in case of failure. In addition, organizational constructs originate in individuals' perceptions of their

work environment. Consequently, agreement across members within the same organization regarding their perceptions of the degree to which the organization supports CE is an important criterion in defending compositional bottom-up emergent constructs (Gupta et al., 2007; Kozlowski & Klein, 2000). These empirical observations underscore the need to combine individual and organizational levels in order to improve our understanding of how large organizations can enhance CE.

Taken together, prior work on CE has focused on either organizational or individual levels of analysis. Organizational scholars have examined the organizational characteristics that facilitate CE, yet have neglected the bottom-up processes that translate managers' individual behavior into organizational outcomes. Individual scholars, on the other hand have studied the personal correlates of managers' entrepreneurial behavior, but have overlooked the top-down effects of organizational context on individual behaviors. Accordingly, how different characteristics of organizational work environments influence entrepreneurial behavior of employees remains an open question, as well as how this behavior is evaluated at the individual level and results in CE at the organizational level. Thus, recent research has argued that in order to more fully understand the determinants of CE, the analysis must be expanded beyond just one level. This dissertation builds on these ideas by adopting a multilevel perspective. In particular, I focus on the important role of mid-level management as critical interface between organization's strategic and operational levels, and include both top-down and bottom-up processes.

The Critical Role of Middle Managers

A broad range of studies has emphasized the middle manager as an important character in implementing and promoting CE (Hornsby et al., 2002; Stevenson & Jarillo, 1990; Wooldridge et al., 2008). The increasing focus on middle managers has lead to a more nuanced perspective on the diverse roles managers perform at different organizational levels. Top managers are facilitators that deploy organizational resources while middle managers develop capabilities and execute the day-to-day decisions linking intended and realized strategies (Balogun & Johnson, 2005; Floyd & Wooldridge, 2000; Helfat et al., 2007). Accordingly, middle managers serve as critical interfaces between top- and operating-level management, such that their entrepreneurial initiatives constitute the seeds of organizational renewal and capability development (Burgelman, 1994; Floyd & Wooldridge, 1997). For instance, scholars have shown that middle managers' involvement in making

and implementing strategy has a direct impact on businesses' financial performance (Floyd & Wooldridge, 2000; Wooldridge & Floyd, 1990).

Middle managers are defined in a number of ways, but three different dimensions tend to consistently create the basis for a definition: hierarchical (Currie & Procter, 2005; Huy, 2001: 2002), functional (Balogun, 2003; Currie & Procter, 2001; Floyd & Wooldridge, 1997; Likert, 1961), and responsibility dimension (Floyd & Wooldridge, 1997). A comprehensive definition of the middle manager should include all three dimensions. In this dissertation, I thus identified middle managers based on their job grade, function and positioned at least two levels below the chief executive officer (CEO), and at least one level above operational line workers.

Due to their position in the organizational hierarchy, middle managers connect the organization's strategic and operational levels. They are the link between vertically related groups throughout the organization (Balogun, 2003; Floyd & Wooldridge, 1992: 1997; Mantere, 2008). Occupying this central position, allows middle managers to absorb new ideas from across the entire organization (Kuratko et al., 1990). For example, scholars such as Balogun (2006) and Huy (2002) show the crucial role middle managers play in implementing organizational change. Middle managers have a hands-on attitude to the details of the business and are a core component in translating initiatives into practical changes in the day-to-day business and in implementing those changes. Floyd and Wooldridge (1997, p. 466) illustrated this point by stating: *"Middle managers perform a coordinating role where they mediate, negotiate, and interpret connections between the organization's institutional (strategic) and technical (operational) levels"*. As facilitators of information and resource flows, middle managers thus play a critical role as champions and intermediaries in CE.

Despite the number of studies that have emphasized the potential role of middle managers as drivers of CE, less work has been done on the price middle managers may pay for their position in the organizational hierarchy. Their intermediate role makes them particularly prone to conflicting demands and expectations from other members of the organization about how they might carry out their roles (Coleman, 2003). Top management restricts middle managers' scope for action, and might send confusing signals such as simultaneous demands for deployment of existing resources and development of new ones (Floyd & Lane, 2000). Yet, only a few studies have accentuating middle management's important strategic role, while also highlighting the possible negative effects (Laine & Vaara, 2007; Mantere, 2008; Meyer, 2006; Wooldridge et al., 2008). For instance, Floyd and Lane (2000) highlight that middle managers face strategic role conflict as they

manage and conduct a set of contradictory tasks between exploiting old certainties in familiar business domains and exploring new business opportunities and competences in less familiar settings. Although there is evidence for a statistical relationship between middle managers position and role conflict, the theoretical rationale for the relationship has been unclear and untested. Despite recent calls, little attention has been paid to the pivotal role of middle managers attending to conflicting demands (Cohen & Levinthal, 1990; March, 1991; Taylor & Helfat, 2009). There is also a lack of attention on middle management's critical roles as corporate entrepreneurs because they frequently do not receive the recognition they deserve from top management (Huy, 2001).

While middle managers encompass a wide range of activities (such as explaining issues, championing alternatives, and implementing deliberate change), understanding the conditions that facilitate middle managers' proactive pursuit of new initiatives remains limited (Kuratko et al., 2005). As the mid-level forms the hub through which most strategic information flows (Burgelman, 1994; Dutton & Ashford, 1993; Floyd & Wooldridge, 1992) and fulfills the broadest range of strategic roles, the complex set of expectations middle managers juggle creates an increased risk of role conflict (Floyd & Lane, 2000). This suggests that there is a need to investigate how middle managers create entrepreneurial initiative and cope with tension created by different role expectations and opposing demands.

Antecedents of Entrepreneurial Behavior

In its broadest conception, entrepreneurial behavior is a comprehensive term that captures all actions taken by a firm's members that relate to the discovery, evaluation, and exploitation of entrepreneurial opportunities (Shane & Venkataraman, 2000; Smith & Di Gregorio, 2002). Prior scholars have provided a variety of individual entrepreneurial behaviors and describe some key behavioral aspects that include: actively searching for information, out of the box thinking, voicing, championing, taking charge, finding solutions, and some degree of risk taking (Crant, 2000; Kanter, 1988; Lumpkin, 2007; Parker & Collins, 2010; Pinchot, 1985). In this dissertation I focus on personal initiative of middle managers (Frese & Fay, 2001). *Personal initiative* is defined as work behavior that is self-starting, proactive, and persistent in overcoming difficulties (Frese & Fay, 2001). It signifies the extent to which middle managers pursue self-set goals instead of assigned ones, proactively respond to emerging opportunities rather than wait for others to follow, and are committed to overcoming barriers and resistance to change (Crant, 2000;

Frese et al., 1996). Personal initiative thus implies that a person acts proactively without being told, without getting an explicit instruction, or without an explicit role requirement. Whereas scholars describe proactive behavior as actions that effect change (e.g., Bateman & Crant, 1993), Frese, and colleagues (1996) add the important criterion that personal initiative work behaviors are anticipatory and forward-looking. Therefore, personal initiative is considered as a key facet of entrepreneurial behavior in organizations. It conveys the extent to which middle managers anticipate future problems and opportunities, actively solicit feedback on plans, and develop unconventional solutions that help organizations shift from one set of operating routines to another (Crant, 2000; Frese et al., 1996). Personal initiative lies at the heart of middle managers' potential roles to become corporate entrepreneurs because it captures their propensity to take actions aimed at the sustained pursuit of entrepreneurial opportunities (Kuratko et al., 2005).

Since entrepreneurial behavior resides within the middle managers of organizations, the question remains when these individuals start to take personal initiative and how this work behavior can be stimulated (Hayton, 2005; Hornsby et al., 2002). In examining the antecedents of personal initiative, researchers have focused either on organizational level antecedents or individual level antecedents. For instance, scholars have identified organizational antecedents such as management support, work discretion, and reward systems in promoting entrepreneurial work behavior (Burgers et al., 2009; Kuratko et al., 1990; Zahra & Covin, 1995). Although this work has clarified some aspects of how to stimulate entrepreneurial behavior, factors in the internal work environment cannot fully account for why managers in the same organizational context vary in their propensity to develop personal initiatives. On the contrary, individual level scholars have primarily focused on motivational and skill development processes (Frese, 1982) and report that career planning and need for achievement foster personal initiative (Frese et al., 1997). These scholars have identified individual characteristics like self-efficacy (Krueger, 2000) and proactive personality (Grant & Ashford, 2008) to benefit initiative taking and suggest that individual control aspirations, change orientation, active coping, and handling errors enhance personal initiative (Frese & Fay, 2001). Yet, individual level scholars have overlooked the top-down effects of the organizational context in which middle managers operate. The interactional effects of the organizational and individual level antecedents of personal initiative thus become particularly important as organizational context constitutes as an "impinging" force on organizational phenomena in general (Johns, 2006) and as

“shaping” work roles in particular (Katz & Kahn, 1978). This indicates that studying multivariate configurations, including the organizational context in which personal initiative takes place, provides a more complete understanding of the antecedents causing middle managers to take personal initiative.

Social Capital as Antecedent of Personal Initiative

As personal initiative often implies that a process or task is added or modified, these changes frequently involve setbacks and overcoming barriers. It requires middle managers to increase their feeling of empowerment, and gaining access and control over information to extend existing capabilities (Floyd & Woolridge, 1997). Recent research on entrepreneurial behavior has started to highlight how middle managers’ network relationships with other actors in the organization can influence their involvement in initiative taking (Floyd & Wooldridge, 1997; Pappas & Wooldridge, 2007). For example, scholars underscore the importance of network building for gaining access towards resources and latitude to pursue high-level initiatives (Thompson, 2005), and emphasize on the role of influence networks to secure endorsements to convince the necessary supporters of the corporate entrepreneurs’ credibility (Kuratko et al., 2008). However, the main focus of these studies concern network building, while social network scholars argue that one’s position within a network determines the extent to which one can gain access to information, wield influence, and shape organizational change (Brass, 2001; Burt, 1992). Thus, in order to understand the variation of personal initiative of middle managers, the position within a social network becomes important as it implies control over certain information and access towards specific resources.

Social network literature assumes that individuals secure significant strategic advantages from being embedded in social networks and that social networks have value (Brass et al., 2004; Dacin et al., 1999). This value, along with the advantages that individuals gain from their networks, has been labeled *social capital* (Adler & Kwon, 2002). Social capital reflects the goodwill in social relationships that can facilitate action (Bourdieu, 1985; Lin, 2001). A dominant theme in the social network literature concerns the characteristics of a good network (Acquaah, 2007; Moran, 2005). This idea assumes that not all networks provide individuals with the same advantages. Specifically, researchers have argued that some social networks are better suited than others to assist actors (e.g. Burt, 2000). For instance, social capital can be a useful resource both by enhancing internal organizational trust through

bonding actors, as well as bridging external networks in order to provide resources (Adler & Kwon, 2002; Putnam, 2000).

Bonding and *bridging* are two main streams identified in the social network literature. Bonding refers to a closed network, in which every contact knows most of the other contacts. Such a network structure is likely to provide “fine-tuned” information, which can quickly be transformed into successful opportunities (Uzzi, 1996: 1997). However, scholars like Granovetter (1973) and Burt (1992) have argued that these strong ties and bonding networks provide information that other parties are already aware of (so-called redundant information). By contrast, these scholars argue in favor of bridging ties that provide competitive advantages. Networks with many holes in the social structure offer bridging opportunities, which enable the actor to go beyond the immediate network. Structural holes bring in non-redundant information that may provide opportunities that can be translated into profits. Thus, structural holes are an opportunity to broker the flow of information between otherwise unconnected people and control the projects that bring them together (Burt, 2004). Recent studies indicate that neither bonding nor bridging by themselves offer the optimal solution. One could argue that without bridging social capital, bonding groups can become isolated and disenfranchised. While a growing number of researchers recognize the important role that intra-firm networks play in promoting entrepreneurial activities, their explanations make only indirect reference to the nature of ties and how those ties may fit together (Simsek et al., 2003). Given that bonding and bridging social capital can work together productively, the current dissertation considers both types.

In sum, prior research has focused on individual or organizational antecedents in explaining entrepreneurial behavior of middle managers. In this dissertation I focus on personal initiative as indicator of entrepreneurial behavior because it captures middle managers’ propensity to take actions aimed at the sustained pursuit of entrepreneurial opportunities (Kuratko et al., 2005). I combine individual and organizational levels through managers’ network relationships. Since individuals’ and organizational entities are simultaneously embedded in intra-organizational networks, social capital can influence their involvement in corporate entrepreneurial activity (Floyd & Wooldridge, 1997; Pappas & Wooldridge, 2007). The social network literature thus provides a powerful theoretical lens to help explain personal initiative and performance differences among middle managers.

Outcomes of Entrepreneurial Behavior

Numerous scholars recognize the importance of entrepreneurial work behavior for organizational effectiveness and performance (e.g. Bergeron, 2007; Frese & Fay, 2001). A number of outcomes of entrepreneurial behavior are highlighted in the CE literature. Specifically, a distinction is made between individual level outcomes and organizational level outcomes.

At the organizational level, entrepreneurial behavior is related to the identification of new markets, new customers, the acquisition of new skills and knowledge and the development of new ventures (Burgelman, 1984; Covin & Slevin, 1991; Zahra, 1991). Entrepreneurial behavior thus drives organizational performance outcomes such as creativity, new product development and service enhancement (Bechky, 2003; Carlile, 2004; Hargadon, 2003; Tortoriello et al., 2012), or in short *exploratory innovation* (Jansen et al., 2006). Although prior research has highlighted the importance of entrepreneurial behavior by managers, organizational level scholars have often considered managers as a homogeneous group. As managers at all organizational levels have critical strategic roles to fulfill for the organization to be successful (Floyd & Lane, 2000; Ireland et al., 2003), viewing managers in this way may thus compound the more fine-grained processes involved in the relationship between managers entrepreneurial behavior and organizational outcomes. Indeed, organizational strategy research have long acknowledged that managers hold different roles according to their level in the managerial hierarchy and that as such top-, middle- and operating management are distinct both in terms of their activities as well as the effects of these activities on organizational outcomes (Floyd & Lane, 2000). Besides while extant literature is typically explicit in detailing the potential benefits of entrepreneurial behavior towards organizational outcomes, there are virtually no accounts to consider their potential costs beyond the individual level.

At the individual level, entrepreneurial behavior is related to motivation to learn (Major et al., 2006), career satisfaction (Erdogan & Bauer, 2005), job performance (Thompson, 2005), salary and promotions (Seibert et al., 1999). While these scholars have emphasized the positive outcomes of entrepreneurial behavior, researchers have begun to point out that supervisors may see personal initiative as a threat (Frese & Fay, 2001; Parker et al., 2006), an ingratiation attempt (Bolino, 1999), or an ill-timed distraction (Chan, 2006). For example, Baer and Frese (2003) show that personal initiative can be seen as threatening by those directly affected and was negatively sanctioned by employees' peers and managers. Personal initiative may disturb routines in the short term and therefore is often defeated. In overcoming

internal obstacles to reach their personal initiatives, middle managers can often walk a fine line between clear resourcefulness and outright rule breaking. Hence, it is not surprising that findings from earlier social-psychological research demonstrate that those who engage in entrepreneurial behavior may also experience significant role overload and role conflict as a result of facing simultaneous and often conflicting pressures (Kahn et al., 1964; Katz & Kahn, 1978). In addition, middle managers are evaluated through a management performance cycle where the final appraisal is based upon the achievement of the objectives or targets, which often are directly or indirectly related to the organization's mission and are the behaviors found in an individual's job description. Although prior research has distinguished between employees' in- role performance and extra-role performance, the former is generally given more weight in determining overall job performance evaluations (Rotundo & Sackett, 2002) and in allocating rewards (e.g. Allen & Rush, 1998; Kiker & Motowidlo, 1999). Scholars have therefore argued that although investments in entrepreneurial behavior might be good for group and organizational effectiveness (Podsakoff & MacKenzie, 1997), they may be detrimental for the individual.

Taken together it can be concluded that entrepreneurial behavior results in outcomes both at the organizational as well as the individual level. While prior studies have mainly highlighted the positive effect of entrepreneurial behavior, mixed findings on performance benefits associated with personal initiative have been reported (Kristof, 1996). A key challenge in the literature thus concerns improving our understanding of when personal initiative enhances positive outcomes, such as individual job performance and organizational exploratory innovation, or might enhance negative outcomes, such as role conflict. This dissertation seeks to readdress these mixed findings by developing and empirically testing a multilevel framework that considers both benefits and costs associated with entrepreneurial behavior.

1.2 RESEARCH AIM AND FRAMEWORK

Contributions and Research Aim

The preceding section provides several insights in current debates and unresolved issues that have been identified in the CE literature. Given these relevant insights, this dissertation intends to contribute to the CE and social network literature in six main ways, as discussed below.

Combination of Multiple Levels

1. While CE is a multilevel phenomenon, research on CE has mainly focused on individual or organizational levels (Sharma & Chrisman, 1999). This dissertation aims to develop a more comprehensive approach by identifying important complementarities between organizational and individual antecedents of managers' entrepreneurial behavior. Accordingly, it contributes to understanding the multilevel nature of CE.

2. This thesis also advances a multilevel perspective on social capital. Previous work has mainly concentrated on organizational embeddedness in a single-level network, thereby ignoring the possibility that managers and organizational entities are embedded in multiple types of relationships (Zaheer & Bell, 2005). This thesis underscores the importance of examining potential complementarities or tensions between distinct types of network ties. I aim to extend this configurational perspective (Stam & Elfring, 2008; Tiwana, 2008) by identifying the contingencies that influence what configuration of ties is most conducive for middle managers' entrepreneurial behavior. By configuring individual and organizational network ties, insights are provided into the interplay between social capital at multiple levels.

Antecedents of Entrepreneurial Behavior

3. Prior studies have considered the extent to which managers champion and implement innovative ideas (Hornsby et al., 2009; Howell et al., 2005). While entrepreneurship scholars have mainly focused on entrepreneurial behavior as actions that effect change (e.g. Bateman & Crant, 1993), personal initiative work behaviors are anticipatory and forward looking. Organizational behavior scholars have shown that this behavior may be critical for CE. This dissertation furthers the inquiry into this aspect since it considers personal initiative as a key facet of managers' entrepreneurial behavior.

4. By combining the CE and social network literature, an extension is made to prior research that has focused on the role of individual attributes (e.g. Pearce et al., 1997) or organizational factors (e.g. Hornsby et al., 2002) that stimulate entrepreneurial behavior. By considering how managers' social network positions influence their personal initiative, this thesis confirms and extends the presumed importance of building networks to take initiative (Thompson, 2005). Hence, by empirically investigating social capital effects I aim to clarify the consequences of social network positions in intra-organizational networks with regard to personal initiative and exploratory innovation.

Outcomes of Entrepreneurial Behavior

5. Given the mixed findings on the performance benefits associated with personal initiative, a key challenge concerns to improve our understanding of when personal initiative enhances job performance (Thompson, 2005). As the organizational context is a major influence on the ability to act entrepreneurially (Gibson & Birkinshaw, 2004) my aim is to create a better understanding of the boundary conditions under which personal initiative results in job performance. By taking into account contingencies of the organizational context in which managers operate, I aim to reconcile some of the mixed findings in the literature.

6. Although research demonstrates the importance of ties crossing technical, departmental, or functional boundaries for effective knowledge transfer within organizations (Allen, 1977; Hansen, 1999; Tsai, 2001), extant theorizing overlooks the differential role of formal positions in determining the outcomes that such actions entail. By focusing on the role of middle managers, this dissertation tests the applicability of previous findings to the context of middle managers. Prior research has shown that differences in formal authority play a critical role in executing tasks and the structural ability to “make more of” organizational factors that support exploration (Hornsby et al., 2009; Ibarra, 1993). Therefore, it is likely that middle managers will have different entrepreneurial outcomes than operational-level managers. This dissertation extends prior work that has mainly focused personal initiative by lower-level employees (Frese et al., 1996) or has considered managers as a homogeneous group.

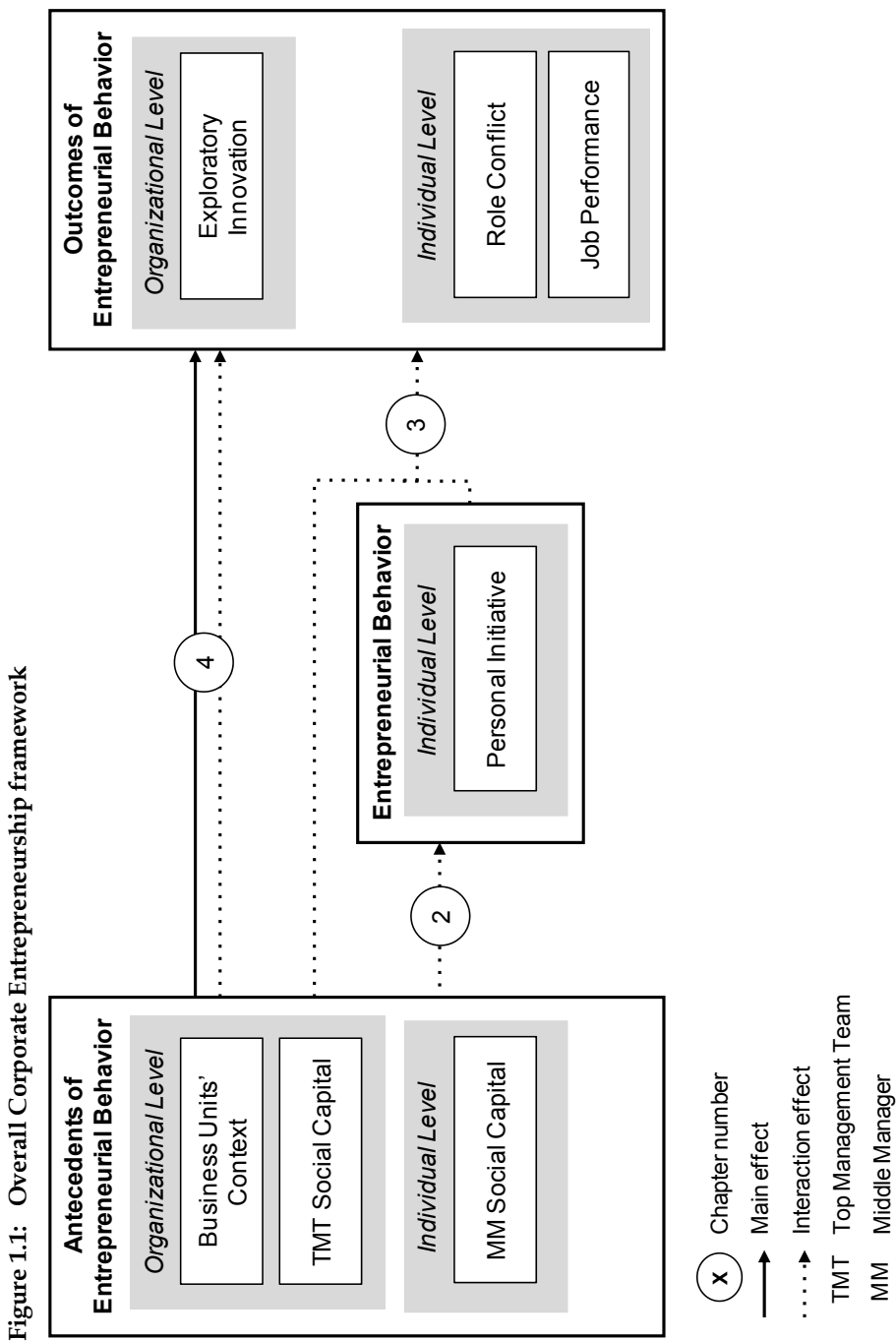
Given the aforementioned contributions, this dissertation’s research aim is:

“To gain insight into the ways in which established organizations may stimulate corporate entrepreneurship by facilitating intra-organizational networks that harness middle managers’ personal initiative across multiple organizational contexts.”

Overall Multilevel CE Framework

To accomplish this research aim, an overall CE framework of this PhD research has been developed. As shown in Figure 1.1 the combination of organizational and individual levels, the antecedents of entrepreneurial behavior, and the outcomes of entrepreneurial behavior are included. The circles represent the chapters and accordingly the three empirical studies. The straight arrows illustrate direct effects and the dashed arrows present interaction effects. As visualized in the figure,

Chapter 2 discusses how the interaction between antecedents of entrepreneurial behavior leads towards entrepreneurial behavior. Specifically, it addresses the personal initiative implications of configurations of individual level social capital and business units' context. Chapter 3 investigates individual level outcomes of entrepreneurial behavior. The study focuses on multilevel contingencies in the relationship between personal initiative and job performance. Chapter 4 focuses on multilevel embeddedness of social capital and discusses individual and organizational level entrepreneurial outcomes. The study makes a distinction between social capital of top management teams (TMT) and social capital of middle managers (MM). Besides differentiating between managerial roles, it includes both organizational and individual level outcomes. Specifically, it examines the direct effect of TMT social capital on organizational level exploratory innovation, and interaction effects of TMT and MM social capital on individual role conflict. Chapter 2 and 3 include top-down approach whereas Chapter 4 adopts a bottom-up approach. The three studies are discussed in more detail in section 1.4.



1.3 DATA COLLECTION AND RESEARCH SETTING

Research Setting

In order to address the research aim that was formulated in section 1.2, I employed a single-industry, multi-method longitudinal research design. The setting of the three empirical studies was a large multinational operating in the transport and logistics service industry. Several studies (e.g. Gibson & Birkinshaw, 2004; Lai et al., 2004) indicate that firms in this industry are forced to explore due to changes regarding technologies, customer demands, competition and regulation. I selected one of the main players within this industry, the former Dutch Postal company TNT N.V. The company is characterized by its long history with roots dating back to 1752. TNT is an established multinational organization with headquarters in the Netherlands. At the time of the data collection TNT operated through two divisions; Mail and Express. TNT operated the national postal service in the Netherlands and also offered postal services in eight other European countries, including the UK, Germany, Italy and Belgium. The main operations of the Express division are focused on picking up, transporting, sorting, handling and storage of packages in over 200 countries worldwide. The firm, which grew considerably in the years prior to the study, had annual revenues of roughly \$17 million in 2010 and reported approximately 163,000 employees.

There were several reasons why TNT provided a unique setting in which to examine the research aim and unanswered questions underlying this dissertation. First of all, in April 2009 the Dutch Ministry for Infrastructure and Environment announced it is ending the monopoly of privatized mail on postcodes. Consequently, TNT was confronted with new entrants that capture the opportunity created by this market liberalization. Secondly, the high penetration level of the internet (in the Netherlands over 90% of all households) has led to a change in communication patterns. New communication technologies continue to replace physical mail, leading to a decline in the postal market as a whole. In 2010, it was estimated that the Dutch addressed postal market volumes declined by around 6%. Due to this changing role of traditional mail and decrease of mail volumes, TNT was forced to explore new solutions to remain competitive. Furthermore, the diffusion of secure digital payment options aid the development of e-commerce. As a result of these changes entirely new fulfillment chains are created, which require reliable and flexible delivery options. This has direct impact on the market for parcel delivery services and has resulted in new market demands for an end-to-end service offering

for small web shops, including not only the value-chain from picking to delivery, but extending this to order intake at the front end and invoicing at the back end.

To cope with the above developments in the external environment, changing from a traditional organization to a more flexible and entrepreneurial one became a necessity. The internal environment of the selected firm can be described as a multiple layer large traditional matrix organization. The Board of Management consisted of four members and the two divisions, Mail and Express, were divided into 34 business entities. These entities have their own budget responsibilities regarding several aspects of operations and are geographically distinct, each with their own managing team of executives.

Methodology

Multiple methods were used to collect both qualitative and quantitative data from a variety of sources. By collecting multi-source and multi-level data, the robustness and generalizability of the findings is increased (Jick, 1979), and the possibility of generating common method variance is reduced (Podsakoff et al., 2003).

First, I conducted a series of interviews within the organization to gain perspective on the research setting and to assure applicability of the methods and theoretical foundation. The qualitative data formed the input for the development of two surveys. Both surveys consisted of previously developed measures to increase the comparability of the findings to prior studies. The surveys were pre-tested by twelve members of the organization to ensure proper wording and understandability. Following the completion of the design and pre-testing, quantitative data was collected. Quantitative data examined the hypothesized relationships among the constructs and enhanced the generalizability of the results (Scandura & Williams, 2000). To ensure high response rate, both surveys provided a cover letter from the chief executive officer (CEO) requesting to complete the survey. Besides, the latest version of the Ipad™ was raffled among respondents who had fully completed the survey. In addition to survey data, a secondary dataset was collected through internal company records. Secondary data consisted of managers' gender, job grade, age, tenure and functional area. Also I collected, seven months after gathering the primary survey data, the year-end job performance appraisals of the middle and top managers. By gathering primary and secondary data at two different points in time, the validity of the measures was established and potential common method variance was reduced (Podsakoff et al., 2003).

Following data collection, the proposed hypotheses were tested using multivariate statistical techniques including moderated and linear regression modeling and hierarchical linear modeling (Aiken & West, 1991; Raudenbush et al., 2004). I used social network analytic techniques to construct the network measures. (Wasserman & Faust, 1994). The final stage of the research project entailed interpreting the main empirical findings. Besides discussing the implications for theory, I also discussed the interpretations with top and middle managers of the management development and strategy departments of TNT. In so doing, surprising results could be discussed as well as their practical implications.

1.4 DISSERTATION OUTLINE

As previously noted, the unresolved issues and research aim presented in this introductory chapter provide a foundation for the body of this dissertation, which consist of Chapters 2, 3 and 4. These chapters are self-contained, to the extent that they represent separate studies intend as individual contributions to CE and social network literature. As such, the introductory sections of each study may contain repetitions of the concepts and theoretical linkages presented in the previous chapter. In this section, each study is concisely introduced and I discuss the individual research questions and key findings. The three studies utilize different models and variables. Table 1.2 jointly summarizes these differences with the main findings. This dissertation will be concluded in Chapter 5. In this chapter, the three studies are put into perspective in a comprehensive discussion and evaluation of their contributions. Chapter 5 also provides specific implications for practitioners, and several limitations and suggestions for further research. Chapter 1 and 5 are written in the first person singular and Chapters 2, 3 and 4 in the first person plural, reflecting the number of authors involved.

Table 1.2: Overview of the three studies

Study	Model	Unit of analysis	Research aim	Contribution	Variables	Main findings
1	Top-down moderation of political capital and business unit context in the relationship between broker position and personal initiative	Middle Managers Top Management Business Units	Examining boundary conditions of broker positions to gain legitimacy, access to information and resources in order to pursue personal initiative	1, 2, 3, 4, 6	<ul style="list-style-type: none"> - Broker position - Personal initiative - Political capital - Social context - Connectedness 	Complementary influence of political capital and social context, and detrimental influence of connectedness on the relationship between broker position and personal initiative.
2	Multilevel configurations of autonomy, risk-taking and business units' context in the relationship between personal initiative and job performance	Middle Managers Business Units	Examining multilevel interactions of when personal initiative enhances or limits managerial performance	1, 3, 5, 6	<ul style="list-style-type: none"> - Personal initiative - Perceived autonomy - Risk taking propensity - Job performance - Performance management context 	Positive moderation of perceived autonomy and negative moderation of risk-taking propensity on the relationship between personal initiative and job performance. Positive multilevel configuration of personal initiative, risk-taking propensity and performance management context on job performance.
3	Cross-level moderation of individual social capital in the relationship between top managements' boundary-spanning and middle managers' role conflict, and bottom-up effects on units' exploratory innovation	Middle Managers Top Management Business Units	Examining boundary-spanning among different managerial roles and their influence on exploratory innovation, including the impact of their interplay on middle managers' role conflict	1, 2, 4, 6	<ul style="list-style-type: none"> - Boundary-spanning - Role conflict - Exploratory innovation - Relative size fit - Overlapping ties fit 	Top management boundary-spanning relates positive to units' exploratory innovation and middle managers' role conflict. Role conflict relates negative to exploratory innovation. Fit between the boundary ties of top and middle management reduces role conflict.

Study 1 (Chapter 2)

The first study, entitled *“When brokerage is not enough: Multilevel influences of network position, political capital, and business unit context on middle managers’ personal initiative,”* examines the role of organizational configurations in taking personal initiative. This study investigates two questions: (1) Does social capital influence middle managers’ pursuit of personal initiative? and (2) How do multilevel configurations of different types of ties and organizational context influence middle managers’ pursuit of personal initiatives? The business unit context is included in the study, to examine the boundary conditions under which middle managers’ broker positions enhance personal initiative. This study refines social capital at the individual level, and social context and connectedness at the organizational level by proposing and testing configuration mechanisms as moderators of the relationship between broker position and personal initiative. The results indicate that at the individual level, a broker position alone fails to generate positive effects on middle managers’ personal initiative. Broker positions only become beneficial in combination with political capital; supportive ties in the executive network. Furthermore, middle managers operating in units with high levels of social context- defined as the presence of support and trust among its members- reap more personal initiative from their broker positions, whereas for those operating in units with high levels of connectedness- defined as the density of communication linkages among units members- the focal link becomes weaker. Taken together, this study suggests that middle managers that occupy broker positions but operate in unfavorable work environments will fail to develop personal initiative. The findings of this study provide new insights into the contextual contingencies that enable or constrain middle managers to leverage their broker positions for pursuing personal initiative.

Study 2 (Chapter 3)

The second study, entitled *“Multilevel contingencies in the link between personal initiative and performance of middle managers,”* examines how contingencies operating at multiple levels combine to influence the relationship between personal initiative and job performance. Whereas study 1 focuses on the antecedents causing middle managers to take personal initiative, this study focuses on how personal initiative is being appraised and rewarded by top management. The study addresses the question: How do multilevel contingencies of individual and organizational antecedents influence the relationship between personal initiative and job performance? More specifically, the study examines how the configuration of

perceived individual autonomy and risk-taking propensity and organizational performance management shapes the relationship between middle managers' personal initiative and job performance. The results indicate that individual autonomy strengthens the relationship between personal initiative and performance, whereas individual risk-taking propensity weakens the focal link. The findings also show that middle managers with high risk-taking propensities reap positive job performance gains from personal initiative in units with high levels of performance management context. However, returns on personal initiative are negative for managers who have high risk-taking propensities and operate in units with low levels of performance management context. Thus, for managers with high risk-taking propensities, the relationship between personal initiative and performance is positive when their unit's performance management context is strong, but negative when performance management is weak. These findings suggest that the pursuit of high-risk initiatives can either be beneficial or detrimental to job performance, depending on the organization's performance management context.

Study 3 (Chapter 4)

The third study, entitled *"Stuck in the middle? Impact of top management boundary-spanning,"* examines how structural embeddedness of social capital at multiple levels influences middle managers' role conflict and units' exploratory innovation. The study addresses three important questions: (1) Do different managerial roles entail a differential effect of boundary-spanning on exploratory innovation? (2) How does boundary-spanning at one level impacts managers at adjunct levels? and (3) What are the effects of the fit between boundary-spanning activities across levels? The study brings together the boundary-spanning literature and role theory to examine the disparity between top management and middle management boundary-spanning effects on exploratory innovation. The results indicate that boundary-spanning of top management teams (TMT) is positively related to exploratory innovation, but at the same time increases middle managers' role conflict. This role conflict results in a negative effect on units' exploratory innovation and thus offsets some of the benefits gained through the boundary-spanning activities of top management. Furthermore, this multilevel study tackles the important issue of the fit between middle managers boundary-spanning and TMT boundary-spanning. The findings support middle managers' active role in mitigating the potential development of role conflict by showing how some individuals span similar ties as their TMTs, rather than getting "stuck" in conflicting demands from TMT. Taken

together, the findings of this study provide new insights into the configuration of multilevel boundary-spanning that enables or constrains managers to maximize their units' exploratory innovation.

1.5 RELATED PUBLICATIONS

The findings from this dissertation have culminated in a number of international, peer-reviewed publications and conference presentations. Table 1.3 presents an overview, organized by chapter.

Table 1.3: Conference papers related to the three chapters

Chapter	Paper
2	<p>Glaser, L., Stam, W. & Elfring, T. 2012. Determinants of entrepreneurial behavior: Multilevel configurations in the relation between social capital and personal initiatives of middle managers. Paper accepted for presentation at the <i>European Academy of Management</i> meeting, June 2012, Rotterdam, The Netherlands</p> <p>Glaser, L., Stam, W. & Elfring, T. 2011. Entrepreneurial initiative and brokerage: The moderating role of the organizational context. Paper presented at the <i>Academy of Management Conference</i>, August 2011, Texas, USA</p> <p>Glaser, L., Stam, W. & Elfring, T. 2010. Corporate entrepreneurship and brokerage: The moderating role of the organizational context. Paper presented at the <i>Cass Business School</i> workshop, December 2010, London, UK</p> <p>Glaser, L., Stam, W. & Elfring, T. 2010. Corporate entrepreneurship: A multilevel phenomenon. Paper presented at the <i>Babson Entrepreneurship Conference</i>, June 2010, Lausanne, Switzerland</p> <p>Glaser, L., Stam, W. & Elfring, T. 2009. Corporate entrepreneurship in established organizations: A model of intrapreneurship at multiple levels of analysis. Paper presented at the <i>Strategic Management Society Conference</i>, November 2009, Washington DC, USA</p>
3	<p>Glaser, L. & Stam, W. 2012. Multilevel contingencies in the relationship between personal initiative and job performance of middle managers. Paper accepted for presentation at the <i>Babson Entrepreneurship Conference</i>, June 2013, Lyon, France</p> <p>Glaser, L. & Stam, W. 2012. Multilevel contingencies in the link between personal initiative and performance of middle managers. Paper presented at the <i>Academy of Management Conference</i>, August 2012, Boston, USA</p> <p>Glaser, L. & Stam, W. 2011. Entrepreneurial initiative and performance of middle managers: A multilevel study. Paper presented at the <i>Strategic Management Society Conference</i>, October 2011, Miami, USA</p>

Chapter	Paper
4	<p>Glaser, L. & Elfring, T. 2012. Stuck in the middle? Impact of top management boundary-spanning on exploratory innovation and middle managers' role conflict. Paper accepted for presentation at the <i>Winter Global Business Conference</i>, February 2013, Tignes, France</p> <p>Glaser, L. & Elfring, T. 2012. Stuck in the middle? Impact of top management boundary-spanning on exploratory innovation and middle managers' role conflict. Paper presented at the <i>Journal of Management Studies</i> paper development workshop, September 2012, Amsterdam, The Netherlands</p> <p>Glaser, L., Stam, W. & Elfring, T. 2011. Organizational opposing demands: Middle managers initiatives and performance. Paper presented at the <i>Strategic Management Society Conference</i>, October 2011, Miami, USA</p>